


SNMP / BACnet IP communication

SDC-PoE 24 is a PoE / PoE + managed layer 2+ switch, with built-in micro-UPS function (Lithium LFP battery). With 24 full-Gigabit ports including 4 SFP ports for fiber links, the switch interconnects and supplies equipments, such as cameras, recorders, alarm panels, etc. It manages data or video flows and monitors the proper functioning of the devices. In the event of a power failure, it ensures service continuity, and maintains operation of the equipments powered by PoE / PoE +.

> Mechanical characteristics					
Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
 <p>Rack 2U</p>	446 x 85 x 380 (without connectors)	7 - 7.7	Painted metal	IP30	Rack / Shelf placement
Connections					
Mains	IEC connector				
PoE ports	20 RJ45 ports	Ethernet cable Cat 5 or more / shielded / straight or twisted cables			
SFP ports	2 SFP ports	SFP module 1000 Mbps transceiver			
Combo ports	2 Combo ports PoE/SFP				
> Switch properties					
Priority Queues	8				
Max. Number of VLANs	4094				
VLAN ID Range	VID 1 to 4094				
IGMP Groups	1024				
MAC Table Size	Up to 8K MAC addresses				
Jumbo Frame Size	9.6 KB				
Performance					
Capacity of the forwarding rate in Millions of Packets per Second (Mpps) (64-byte packets)	38.69 Mpps				
Switching Capacity in Gigabits per Second (Gbps)	52 Gbps				
> Switching characteristics					
Layer 2 Switching					
Spanning Tree Protocol (STP)	Standard Spanning Tree 802.1d				
	Rapid Spanning Tree (RSTP) 802.1w				
Aggregation	Link Aggregation Control Protocol (LACP) IEEE 802.3ad; Up to 12 groups ; Up to 16 ports per group				
VLAN	Supports up to 4K VLANs simultaneously (out of 4094 VLAN IDs) ; Port-based VLAN; 802.1Q tag-based VLAN				
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; it supports 1024 multicast groups (source-specific multicasting is also supported)				
Security					
Secure Sockets Layer (SSL), HTTPS	SSL encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch				
Port Security	Locks MAC Addresses to ports, and limits the number of learned MAC addresses				
IP Source Guard (IPSG)	Prevents datagram with spoofed addresses from being in the network				
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast or unicast storm on a port				
ACLs	Supports for up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/ UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag				

> Switching characteristics			
Quality of Service			
Hardware Priority Queue	Supports 8 hardware queues		
Scheduling	Strict priority and weighted round-robin (WRR)		
	Queue assignment based on DSCP and class of service (802.1p/ CoS)		
Classification	Port based; 802.1p VLAN priority based; IPv4 precedence/ type of service (ToS) / DSCP based		
Rate Limiting	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based		
Management (Web/SSL, SNMP, BACnet)			
Web GUI interface	Built-in switch configuration utility for browser-based device configuration (HTTPS). Supports configuration, system dashboard, maintenance and monitoring.		
Firmware upgrade	Web browser upgrade (HTTPS)		
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to a single destination port. A single session is supported.		
Other management	Single IP management; HTTPS; RADIUS; DHCP Client; SNMP; cable diagnostics		
Green Ethernet			
Link Detection	Compliant IEEE802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit Ethernet RJ-45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up.		
Cable length Detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for shorter cables.		
Eco Mode	Shifts automatically to power-saving mode.		
Discovery			
Link Layer Discovery Protocol (LLDP)	Used by network devices for advertising their identities, capabilities and neighbors on a IEEE 802 local area network, principally wired Ethernet.		
The configuration of the switch functions is done via the embedded website.			
> PoE			
PoE Ports	22 ports support PoE Power Pin Type: End-span (Mode A)		
PoE standard	IEEE 802.3af/at		
	15 W / 30 W per port		
Power	Per port PoE function configuration		
PoE budget	210 W		
Output (Smart Backup)	η @ 25% loading	η @ 75% loading	η @ 100% loading
	90.60%	94.50%	94.60%
> Minimum requirements			
Web browser	Mozilla Firefox version 2.5 or later, Microsoft Internet Explorer version 6 or later		
Network cable	Ethernet cable Cat 5e or more / shielded or unshielded / straight or twisted		
Rack mounting	Rail to place the product in the bay		
> Communication			
Communication speed	PoE ports	10 / 100 / 1000 Mbps	
	SFP ports	100 / 1000 Mbps	
	Combo ports	either 10 / 100 / 1000 Mbps (PoE) or 100 / 1000 Mbps (SFP)	
Application layer protocols	HTTPS, BACnet IP, SNMP, DHCP		
Network layer protocols	IPv4, ICMP		

> Signaling		
1 LED for the "PoE Load" level on the front panel		
1 LED for the product "Status" on the front panel		
22 LEDs indicate the PoE activity of each port on the front panel		
22 LEDs indicate the data transmission activity on the corresponding port in 100 Mbps (yellow)		
22 LEDs indicate the data transmission activity on the corresponding port in 1 Gbps (green)		
> Environmental specifications		
Temperature		
Storage	-20°C à +45°C	
Operating	at 100% load: -10°C ... +45°C	
	at 75% load: -10°C ... +50°C	
Humidity		
Storage	relative humidity 10% to 90%	
Operating	relative humidity 20% to 85%	
Altitude		
Above 2,000 m, the temperature decreases by 5% every 1,000 m.		
Cooling		
The cooling is carried out transversally.		
MTBF		
100,000 h (with battery) and 200,000 h (without battery) at 25 °C product external environment, rated mains voltage, 75% load		
> Electrical characteristics		
Network Input		
AC network voltage	198 to 264 V AC	
Frequency	45 to 65 Hz	
Class	Class 1	
Inrush current	Limited by NTC	
Neutral system	TT, TN, IT	
Protection against	primary short-circuit and differential mode shock waves	
Primary current @ 198 V	2 A	
Primary current @ 264 V	2 A	
Functional characteristics		
Operates in power-saving mode when the backup is charged.		
On/Off function per PoE port.		
Filters disturbances of the electrical network.		
Fan-cooling.		
Configurable reboot function (stop and restart automatically) on each PoE-port.		
Indicates the % of the remaining autonomy.		
Protections		
Against surge and overvoltage on primary (Lightning or industrial origins).		
Against overload by power limitation to $P_n+10\%$.		
Against overcurrent and short-circuits on the output by disconnecting the PoE port at $I > I_n + 10\%$.		
Smart Backup		
SDC-PoE 24 is available in 2 backup packs	6F	6J
Latest generation Lithium LiFePO4 Technology (no risk of thermal runaway).		
Lead-free, cadmium-free, 100% recyclable.		
Storage: 9 months without recharging.		
10 year service life.		
Advanced management settings, cell balancing, overload and overvoltage protection.		

Backup duration according to output power

Operating power	Backup 6F	Backup 6J
	Autonomy expressed in hours and minutes	
10 W	1h35	3h10
20 W	1h12	2h24
30 W	0h58	1h56
40 W	0h48	1h37
50 W	0h41	1h23
60 W	0h36	1h13
70 W	0h32	1h04
80 W	0h29	0h58
90 W	0h26	0h52
100 W	0h24	0h48
110 W	0h22	0h44
120 W	0h20	0h41
130 W	0h19	0h38
140 W	0h17	0h35
150 W	0h16	0h33
160 W	0h15	0h31
170 W	0h14	0h29
180 W	0h14	0h28
190 W	0h13	0h27
200 W	0h12	0h25
210 W	0h12	0h24

> Standards

IEEE standards

IEEE 802.1D	Standard Spanning Tree
IEEE 802.1W	Rapid Spanning Tree (RSTP)
IEEE 802.1Q	VLAN
IEEE 802.1X	Radius
IEEE 802.3AD	Link Aggregation Control Protocol (LACP)
IEEE 802.3I	10BaseT
IEEE 802.3u	100BaseT(X) and 100BaseFX
IEEE 802.3ab	1000BaseT(X)
IEEE 802.3z	1000BaseX
IEEE 802.3x	Flow Control
IEEE 802.3af	PoE
IEEE 802.3at	PoE+
IEEE 802.3az	Energy Efficient Ethernet

Electrical standards

Safety	• EN IEC 62368-1 (2020) + A11 (2020)
EMC - Immunity	• EN IEC 61000-6-1 (2019) • EN IEC 61000-6-2 (2019)
EMC - Emissions	• EN IEC 61000-6-3 (2021) • EN IEC 61000-6-4 (2019)
	• EN IEC 61000-3-2 (2019) (class A) • EN 55032 (2015) (class B)



Security

Transportation security	UN 38.3
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> Product references

Interpretation of the product reference designations: SDC-POE [Backup] RK2 P24

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